505156031 10/24/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT5202798

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOUFIC TANNOUS	10/17/2018
DEEPAK VOKALIGA	10/22/2018
BHASKAR BORA	10/17/2018

RECEIVING PARTY DATA

Name:	EMC IP HOLDING COMPANY LLC
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16168910

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Correspondent Name: ANDERSON GORECKI LLP

Address Line 1: 2 DUNDEE PARK

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ATTORNEY DOCKET NUMBER:	130-192; 112301.01
NAME OF SUBMITTER:	HOLMES W. ANDERSON
SIGNATURE:	/Holmes W. Anderson/
DATE SIGNED:	10/24/2018

Total Attachments: 5

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ASSIGNMENT

WHEREAS, we, **Toufic Tannous**, **Bhaskar Bora**, and **Deepak Vokaliga**, have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled

CONCURRENT REMOTE IO PROCESSING FOR SYNCHRONOUS REPLICATION.

the specification of which:

[X]	Is being executed on even date herewith and is about to be filed in the United States Patent Office;
[]	was filed on as U.S. Application No;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), a Delaware limited liability company having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein:

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts

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which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND, we do hereby appoint as our attorneys Holmes W. Anderson and John C. Gorecki of Anderson Gorecki LLP, whose full office address is 2 Dundee Park, Suite 301A, Andover, MA 01810, and authorize them to prosecute the patent application(s) and correct errors in this Assignment and to insert any further identification and other information necessary or desirable to make this Assignment suitable for recording in a domestic or foreign Patent Office.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date: 22-06T-2018	
	-Inventor's Signature
Print full name of inventor	Deepak Vokaliga
Residence	87 Wood Street
	Hopkinton, MA 01748
Citizenship	India
Mailing Address	176 South Street
	Hopkinton, MA 01748
I, Louis Long (nar	ne of first witness), whose residential address is LEALOWY MA 015P/
	Okaliga (name of person signing the assignment),
who is personally known to me, execute the a	
	(signature or first witness) - <u>^^A _ (174\frac{\xi}{2}</u> (location of witness signature)
on this day, <u>U.A.Ser</u> 32	
on uns day, <u>CAT-SET</u>	, 2010 (date di Signature).
I, Train Adamy (named to 12 Forter St #3)	ne of second witness), whose residential address is Cambridge MA 02158
was personally present and did see Deepak \	okaliga (name of person signing the assignment),
who is personally known to me, execute the	above assignment.
Grand Commence of the Commence	(signature of second witness)
Signed at 176 Son + L S+ Hop 1	스마는 어디어 (location of witness signature)
on this day, <u>6248200</u> 22	, 2018 (date of signature).

Date: 10/17/2018	47
	Inventor's Signature
Print full name of inventor	Toufic Tannous
Residence	32087 Hamilton Court, Apt. 104
	Solon, OH 44139
Citizenship	US
Mailing Address	176 South Street
	Hopkinton, MA 01748
I, Margat Azzi (nar	ne of first witness), whose residential address is
32087 Hamilton CT Apt	
	unnous (name of person signing the assignment),
who is personally known to me, execute the a	bove assignment.
<u> </u>	
TAL	(signature of first witness)
Signed at 3087 Hay 140 CT Apt 100	Sac CH 4413 (location of witness signature)
	, 2018 (date of signature).
I, Mary Brady (nar	ne of second witness), whose residential address is
132 Lavis Ave La	isville, OH 44641
	unnous (name of person signing the assignment),
who is personally known to me, execute the a	bove assignment.
MayBrass	(signature of second witness)
Signed at 32087 Hamilton	CT APT 10 (location of witness signature)
on this day, 10/17/18	, 2018 (date of signature).

Date: 10/13/2018	Bushas Jack
· ,	Inventor's Signature
Print full name of inventor	Bhaskar Bora
Residence	6 Ashton Drive
	Shrewsbury, MA 01545
Citizenship	India
Mailing Address	176 South Street
	Hopkinton, MA 01748
<u>\$7 Russell Road</u> , Fz was personally present and did see Bi is personally known to me, execute th	(name of first witness), whose residential address is Lamingham, 144, 0/702 naskar Bora (name of person signing the assignment), who le above assignment. (signature of first witness)
	(location of witness signature)
on this day,	, 2018 (date of signature).
6 ASHTON DRIVE, SHREW	(name of second witness), whose residential address is <u>以らわれな 、かみ こしたもち</u> h askar Bora (name of person signing the assignment), who
is personally known to me, execute th	e above assignment.
Mahou Brace Signed at Sheers being, on this day, 10/18	(signature of second witness) (location of witness signature) , 2018 (date of signature).

..J..

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